

Amendments to the Drawings:

The drawing sheet attached in connection with the above-identified application containing Figures 4 and 5 is being presented as a new formal drawing sheet to be substituted for the previously submitted drawing sheet containing Figures 4 and 5. The drawing Figures 4 and 5 have been amended.

The specific change which has been made to Figure 4 is that the signal labeled “A3” has been relabeled as “B2”.

The specific change which has been made to Figure 5 is that the signal labeled “A3” has been relabeled as “B2”.

REMARKS

Status of Claims:

Claims 4, 7-8, and 11 remain cancelled. Thus, claims 1-3, 5-6, 9-10, and 12-31 remain present for examination.

Interviews with Examiner:

Applicant expresses appreciation to the Examiner for the courtesy of the interviews on April 20, 2005 and April 21, 2005, in which the Examiner indicated that the claims in their present form are distinguishable from the cited prior art.

Specification:

The specification has been amended to correct some minor informalities.

Drawings:

The drawing Figures 4 and 5 have been amended to correct some minor informalities.

Claim Rejections:

Claims 1-4, 9-10, 12-18, 20-24, and 26-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Aratani et al (U.S. Patent Number 6,538,675 B2) (hereinafter Aratani).

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aratani in view of Han (U.S. Patent Number 6,175,387 B1).

Claims 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aratani in view of the admitted prior art (Fig. 6).

Claim 4 has been cancelled. With respect to claims 1-3, 5-6, 9-10, and 12-31, the rejections are respectfully traversed.

Aratani neither discloses nor suggests an image decoding apparatus having features as recited in independent claim 1 for at least the following four reasons.

First, Aratani neither discloses nor suggests the feature, “wherein said filter parameters are multiplexed with the decoded image data in said non-display period.” The Examiner asserts that: (a) the claimed a decoding device is met by the input portion 2 of the system of Aratani; (b) the claimed a memory device is met by the input portion 2; (c) the claimed first to N-th image format conversion devices are met by the display format conversion portions 3-1 to 3-4 in the system of Aratani and the control portion 6 supplies the conversion parameters to the display format conversion portion 3; and (d) the claimed wherein said filter parameters are multiplexed with the decoded image data in said non-display period is met by the input portion 2 which supplies the image source 1 with data.

However, if the input portion 2-1 of the system of Aratani supplies the decoded image data to the display format conversion portion 3-1, and the input portion 2-1 supplies the filter parameters to the image source 1-1, then the filter parameters cannot be multiplexed with the decoded image data since they are being sent to different places. Also, Aratani neither discloses nor suggests that decoded image data and filter parameters are multiplexed.

Second, Aratani neither discloses nor suggests the feature, “wherein a non-display period is provided between a common timing of each of said vertical image synchronizing signals and a timing of said image data”. The Examiner asserts that the claimed wherein a non-display period is provided between a common timing of each of said vertical image synchronizing signals and a timing of said image data is met by the display driving controller 12 of the system of Aratani.

However, Aratani neither discloses nor suggests that a non-display period is provided. Also, from FIG. 1 of Aratani, it is apparent that the display driving controller 12 does not control the input of any signals into the image source 1-1, the input portion 2-1, the display format conversion portion 3-1, or the control portion 6, so the display driving controller 12 would not be able to provide such a non-display period.

Third, Aratani neither discloses nor suggest the feature, “first to N-th, N being an integer 2 or more, image format conversion devices for ... outputting said first to N-th images in synchrony with input first to N-th vertical image synchronizing signals which are

synchronized with each other”. Such a feature allows for first to N-th images to be output simultaneously from the first to N-th image format conversion devices.

In the system of Aratani, the display format conversion portions 3-1 to 3-4 do not output first to fourth images simultaneously, because each of the display format conversion portions 3-1 to 3-4 are connected to one common bus through bus interface portions 4-1 to 4-4. (Aratani; column 4, lines 47-49). Because the display format conversion portions in the system of Aratani output data to one common bus, the display format conversion portions 3-1 to 3-4 do not output their respective images simultaneously. Indeed, a bus controller 5 arbitrates the transfer of data on the common bus in accordance with a priority order upon reception of transfer requests. (Aratani; column 4, lines 47-55).

Moreover, the different display results (a), (b), (c), (d), and (e) of FIG. 2 of Aratani cannot be produced simultaneously by the display format conversion portions 3-1 and 3-2. In Aratani, only one of the display results of (a)-(e) can be produced at a time by the display format conversion portions, because the conversions for each display result are different. (Aratani; column 8, line 65 to column 9, line 28). The control portion 6 must be instructed as to which one of the display results (a) to (e) is desired, and each time a layout change is instructed, the control portion 6 notifies a change in the display parameters to the display format conversion portions 3-1 and 3-2.

Also, Aratani neither discloses nor suggests that vertical image synchronizing signals that are input to display format conversion portions 3-1 to 3-4 are synchronized with each other.

Fourth, Aratani neither discloses nor suggests the feature, “first to N-th, N being an integer 2 or more, image format conversion devices for generating first to N-th images by converting said decoded image data read from the memory device into respective predetermined image formats”. Such a feature allows for each of the first to N-th image format conversion devices to receive the same decoded image data from the memory device.

In the system of Aratani, the first to fourth display format conversion portions 3-1 to 3-4 do not receive the same decoded image data. Display format conversion portion 3-1

converts image data received by input portion 2-1 from image source 1-1, while display format conversion portion 3-2 converts image data received by input portion 2-2 from image source 1-2. Also the image sources 1-1 to 1-4 are four different image sources. (Aratani; column 4, lines 8-10).

Therefore, independent claim 1 is neither disclosed nor suggested by the cited prior art and, hence, is believed to be allowable.

Independent claim 2 is believed to be allowable for at least the first, second, and third reasons given above with respect to the differences of claim 1 from the system of Aratani.

Independent claim 9 recites a semiconductor device with features similar to features of an image decoding apparatus of claim 1. Therefore, independent claim 9 is believed to be allowable for at least the same reasons that claim 1 is believed to be allowable.

Independent claim 10 recites a semiconductor device with features similar to features of an image decoding apparatus of claim 2. Therefore, independent claim 10 is believed to be allowable for at least the same reasons that claim 2 is believed to be allowable. In addition, with respect to claim 10, the Examiner asserted that the claimed a decoded data reading device for reading said first or second image data stored in said memory device in response to an inputting first decoded data request signal and for reading said first or second image data stored in said memory device in response to an inputting second decoded data request signal and for outputting said first and second image data is met by the control portion 6 of the system of Aratani. However, Aratani neither discloses nor suggests that the control portion 6 reads image data stored in a memory device or outputs image data. Therefore, claim 10 is believed to be allowable for at least that additional reason.

Independent claim 12 recites an image decoding method with features similar to features of an image decoding apparatus of claim 1. Therefore, independent claim 12 is believed to be allowable for at least the same reasons that claim 1 is believed to be allowable.

Independent claim 13 recites an image decoding method with features similar to features of an image decoding apparatus of claim 2. Therefore, independent claim 13 is believed to be allowable for at least the same reasons that claim 2 is believed to be allowable.

The dependent claims are deemed allowable for at least the same reasons indicated above with regard to the independent claims from which they depend.

Conclusion:

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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